
MATH1300: CALCULUS I

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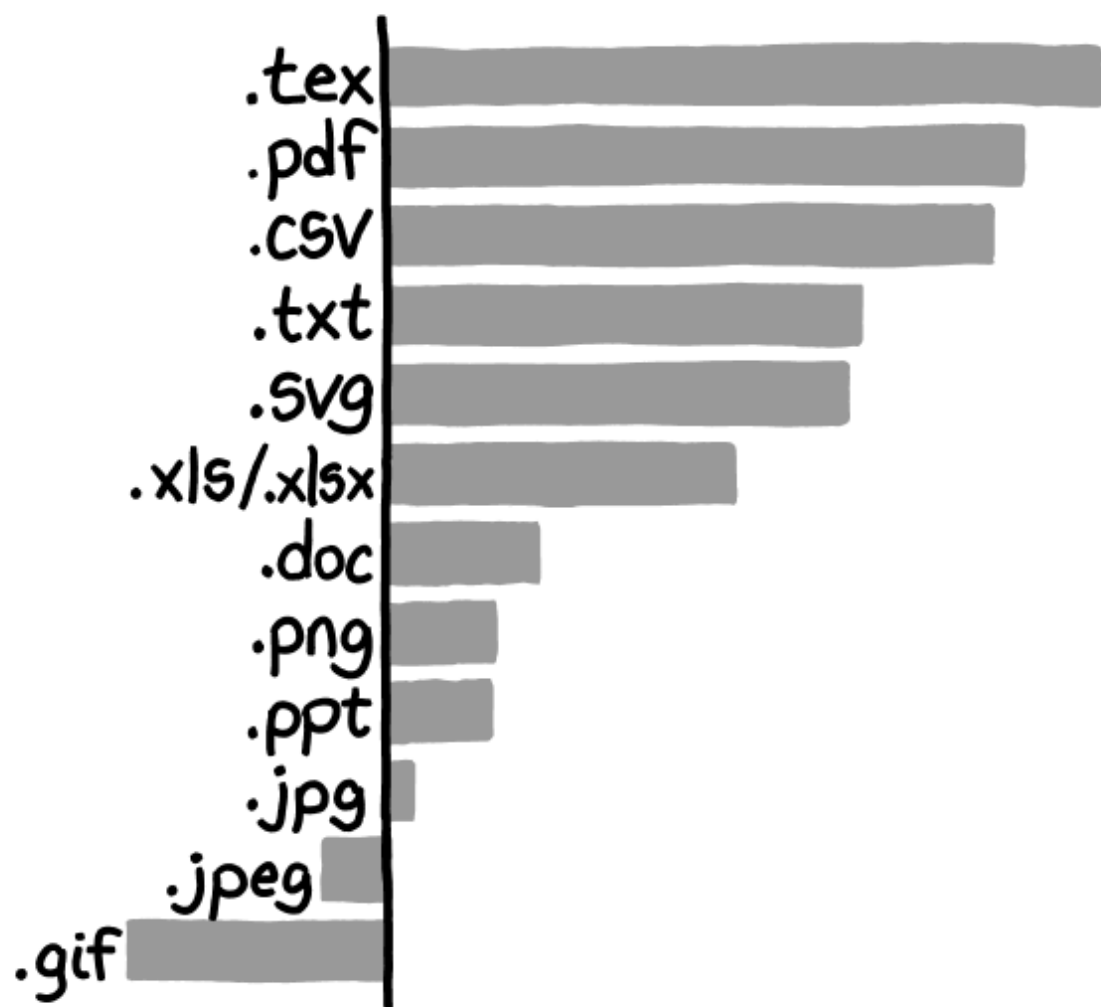
TEXTBOOK: JAMES STEWART

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EDITION 1

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Preface

To the interested reader,

This document is a compilation of notes taken during the Spring 2023 semester for MATH1300: Calculus I at the University of Colorado Boulder during the author's tenure as a learning assistant for the course. The course used *Calculus – Concepts and Contexts*¹ by James Stewart as its primary text and was coordinated by Harrison Stalvey and Christopher Eblen. Additionally, in creating these notes, the author used *Calculus* by Ron Larson and Bruce Edwards. As such, many theorems, definitions, and examples may be quoted or derived from the aforementioned books.

The author would like to provide the following resources for students currently taking a Calculus I course:

1. Paul's *Online Math Notes* for Calculus I at Lamar University.
2. Professor Leonard's YouTube Calculus I Lectures.
3. 3Blue1Brown's *Essence of Calculus*.

Theorems, definitions, and examples may be quoted or derived from the aforementioned resources as well.

While much effort has been put in to remove typos and mathematical errors, it is very likely that some errors, both small and large, are present. If an error needs to be resolved, please contact Adithya Bhaskara at adithya.bhaskara@colorado.edu.

Best Regards,
Adithya Bhaskara

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¹Stewart, J. (2010). *Calculus – Concepts and Contexts* (4th ed.). Cengage.

1

Functions and Models

1.1 Week 1: January 16 – January 20

2

Limits and Derivatives

- 2.1 Week 1: January 16 – January 20
- 2.2 Week 2: January 23 – January 27
- 2.3 Week 3: January 30 – February 3
- 2.4 Week 4: February 6 – February 10

3

Differentiation Rules

3.1 Week 5: February 13 – February 17

3.2 Week 6: February 20 – February 24

4

Applications of Differentiation

- 4.1 Week 7: February 27 – March 3
- 4.2 Week 8: March 6 – March 10
- 4.3 Week 9: March 13 – March 17
- 4.4 Week 10: March 20 – March 24
- 4.5 Week 11: March 27 – March 31

5

Integrals

- 5.1 Week 12: April 3 – April 7**
- 5.2 Week 13: April 10 – April 14**
- 5.3 Week 14: April 17 – April 21**
- 5.4 Week 15: April 24 – April 28**
- 5.5 Week 16: May 1 – May 5**

